

NOTES ON TABLE 62.35-50:

1. The monitoring and controls listed in this table are applicable if the system listed is provided or required. References to ABS Table 41.1 apply to the "Operation," "Display," "Alarm," and "Notes" 1 through 12, except the reference to ACCU in Note 11.
2. Safety limit controls must be provided in navigating bridge primary propulsion control systems. See § 62.35-5(c).
3. Safety trip controls and alarms must be provided for all main boilers, regardless of mode of operation. See § 62.35-20(a).
4. Loss of forced lubrication safety trip controls must be provided, as applicable.
5. Override of overspeed and loss of forced lubrication pressure safety trip controls must not be provided. See § 62.35-5(e)(2).
6. Transfer interlocks must be provided.
7. Semiconductor controlled rectifiers must have current limit controls.
8. Interlocks must be provided. See § 62.25-5(a).
9. See subparts 113.10, 161.002, and fire protection requirements of the applicable subchapters. The use of thermal detectors alone is subject to special consideration by the Commandant (G-MSE). Flame detectors may only be used in conjunction with smoke or heat detectors.
10. See § 62.50-20(b)(1).
11. Alarms and controls must be failsafe. See § 62.30-1.
12. Vital auxiliary boilers only. Also see part 63.

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Subpart 62.50—Automated Self-propelled Vessel Manning

§ 62.50-1 General.

(a) Where automated systems are provided to replace specific personnel in the control and observation of the engineering plant and spaces, or reduce overall crew requirements, the arrangements must make sure that under all sailing conditions, including maneuvering, the safety of the vessel is equal to that of the same vessel with the entire plant under fully attended direct manual supervision.

(b) Coast Guard acceptance of automated systems to replace specific personnel or to reduce overall crew requirements is predicated upon—

- (1) The capabilities of the automated systems;
- (2) The combination of the personnel, equipment, and systems necessary to

ensure the safety of the vessel, personnel, and environment in all sailing conditions, including maneuvering;

(3) The ability of the crew to perform all operational evolutions, including emergencies such as fire or control or monitoring system failure;

(4) A planned maintenance program including routine maintenance, inspection, and testing to ensure the continued safe operation of the vessel; and

(5) The automated system's demonstrated reliability during an initial trial period, and its continuing reliability.

NOTE: The cognizant Officer in Charge, Marine Inspection, (OCMI) also determines the need for more or less equipment depending on the vessel characteristics, route, or trade.

(c) Equipment provided to replace specific personnel or to reduce overall crew requirements that proves unsafe or unreliable in the judgment of the cognizant Officer in Charge, Marine Inspection, must be immediately replaced or repaired or vessel manning will be modified to compensate for the equipment inadequacy.

§ 62.50-20 Additional requirements for minimally attended machinery plants.

NOTE: Minimally attended machinery plants include vessel machinery plants and spaces that are automated, but not to a degree where the plant could be left unattended. Emphasis is placed on the centralized remote control and monitoring of the machinery plant and machinery spaces.

(a) *General.* (1) Navigating bridge propulsion control must be provided.

(2) An ECC must be provided and must include the automatic and remote control and monitoring systems necessary to limit the operator's activity to monitoring the plant, initiating programed control system sequences, and taking appropriate action in an emergency.

(3) The ECC must include control and monitoring of all vital engineering systems, including—

- (i) The propulsion plant and its auxiliaries;
- (ii) Electrical power generation and distribution;
- (iii) Machinery space fire detection, alarm, and extinguishing systems; and